

DEPARTMENT OF ENVIRONMENTAL QUALITY
DIVISION OF ENERGY, MINERAL, AND LAND RESOURCES

FACT SHEET

GENERAL PERMIT NCG030000
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM
PERMIT TO DISCHARGE STORMWATER

2021 – 2026 Permit Term

1. TYPES OF DISCHARGES COVERED

a. Industrial Activities Covered by this General Permit

Coverage under this general permit applies to all owners or operators of stormwater point source discharges associated with activities from establishments primarily engaged in:

- Heat Treating of Metal [standard industrial classification (SIC) 3398]
- Rolling, Drawing, and Extruding of Nonferrous Metals (SIC 335)
- Fabricating of Metal Products (SIC 34)
- Manufacturing of Industrial and Commercial Machinery (SIC 35)
- Manufacturing of Electronic Equipment (SIC 36)
- Manufacturing of Transportation Equipment (SIC 37)
- Manufacturing of Measuring and Analyzing Instruments (SIC 38).

Coverage also applies to point source discharges from like industrial activities deemed by the Division of Energy, Mineral, and Land Resources (DEMLR) to be similar to these operations in the process, or the discharges, or the exposure of raw materials, intermediate products, by-products, products, or waste products.

b. Types of Operations Covered

SIC groups 34, 35, 36, 37, and 38 industry categories include facilities involved in the manufacture of metal and metal-related products, including metal cans; tinware; handtools; cutlery; general hardware; nonelectric heating apparatus; metal forgings; metal stampings; ordnance; engines and turbines; farm and garden machinery; construction machinery; mining machinery; elevators; hoist cranes; monorails; industrial trucks; tractors; industry machinery electricity distribution equipment; electrical industrial apparatus; household appliances; electrical lighting and wiring equipment; radio and TV receiving equipment; communications equipment; electronics components and accessories; motor vehicles; aircraft; guided missiles; space vehicles; boats; railroad equipment; motorcycles; bicycles; snowmobiles; measuring instruments; instruments sensors; optical instruments; lenses; surveying and drafting instruments; hydrological, hydrographic, meteorological, and geophysical equipment; medical equipment; dental equipment; ophthalmic goods; photographic equipment; and watches and clocks.

Facilities involved in the metal finishing industry may include activities best described by the following list from Title 40 Code of Federal Regulations Part 433 (40 CFR § 433):

Cleaning
Machining

Sand Blasting
Other Abrasive Jet Machining

Vapor Plating
Mechanical Plating

Grinding	Electrical Discharge Machining	Thermal Infusion
Polishing	Electrochemical Machining	Salt Bath Descaling
Tumbling	Electron Beam Machining	Solvent Degreasing
Burnishing	Laser Beam Machining	Paint Stripping
Impact Deformation	Plasma Arc Machining	Painting
Shearing	Ultrasonic Machining	Electrostatic Painting
Heat Treating	Sintering	Vacuum Metalizing
Thermal Cutting	Laminating	Assembly
Welding Brazing	Hot Dip Coating	Calibration
Soldering	Sputtering	Testing
Flame Spraying		

Also, facilities involved in the metal plating operations may include the following activities from 40 CFR 413:

Electroplating	Electroless Plating	Chemical Conversion Coating
Etching and Chemical Milling	Anodizing	

Facilities involved in the coil coatings operations may include the following activities from 40 CFR 465:

Coil Coatings with Steel Base Material
 Coil Coatings with Galvanized Base Material
 Coil Coatings with Aluminum Base Material
 Can Making

Facilities involved in electrical and electronic components manufacture may include the following activities from 40 CFR 469:

Semiconductor Manufacture	Electronic Crystals Manufacture
Cathode Ray Tube Manufacture	Luminescent Materials Manufacture

The following types of operations are not covered: ship and boat building and repairing (SIC 373). These operations are covered under general stormwater permit NCG190000.

c. Geographic Area(s) Covered by this General Permit

Discharges covered by this general permit are located at any place within the political boundary of the State of North Carolina. Discharges located on the Cherokee Indian Tribal Reservation are subject to permitting by the U.S. Environmental Protection Agency and are not covered by this general permit.

d. Receiving Waters

Receiving waters include all surface waters of North Carolina or municipal separate storm sewer systems (MS4s) conveying stormwater to surface waters.

2. PROPOSED DISCHARGE CONTROLS AND LIMITATIONS

a. *Stormwater Discharge Analytical Monitoring*

The renewal permit maintains the analytical monitoring requirements for all stormwater discharge outfalls associated with industrial activity. However, two substantial changes have been made to the analytical monitoring requirements:

- i. Non-Polar Oil and Grease was incorporated as a standard monitoring parameter for all SDOs, not just those with vehicle or equipment maintenance areas. With this change, we have removed the separate monitoring requirements for outfalls only associated with vehicle/equipment maintenance areas.
- ii. The monitoring parameter Total Toxic Organics (TTO) has been removed. In its place, was added Chemical Oxygen Demand (COD). This change was due to the complexity surrounding TTO monitoring and the fact that permittees could opt out of TTO monitoring by developing and implementing a Solvent Management Plan. A review of approximately 600 NCG03 discharge monitoring reports showed only around 10% of permittees are actually monitoring for TTO. Additionally, among those that are monitoring for TTO, only a handful reported results above the benchmark.

In the renewal permit, all permittees must develop and implement a solvent management plan and monitor for all parameters.

b. *Qualitative Monitoring of Stormwater Discharges*

The renewal permit also maintains the qualitative monitoring requirements for all SDOs associated with industrial activity. However, unlike in previous versions where qualitative monitoring was required regardless of representative outfall status, the permittee may receive ROS specifically for visual monitoring.

c. *Numerical Benchmark and Tiered Responses*

As in previous versions of this General Permit, the permittee must respond to benchmark exceedances through the tiered response described in the draft permit. Exceedance of a numerical benchmark is not considered a violation of the permit conditions, although failure to respond as per the tiered response structure is considered a violation. In that context, the benchmark value is not a numerical “permit limit.”

3. MONITORING AND REPORTING REQUIREMENTS

This permit specifies monitoring and reporting requirements for both quantitative and qualitative assessment of the stormwater discharges and operational inspections of the entire facility. Pollutant parameters and sampling frequency are based on the industrial activity performed at subject facilities, and on the potential for contamination of the stormwater runoff from those facilities. Qualitative parameters are consistent with other general permits in the NPDES stormwater program.

The renewal permit requires the permittee to separate sampling events by a minimum of 30 days, rather than the 60 days required by the previous permit. This is due to the new requirement of **quarterly** monitoring, rather than semi-annual monitoring.

4. COMPLIANCE SCHEDULE

The compliance schedule in Part I still advises that the permittee comply with Limitations and Controls specified for stormwater discharges in accordance with the following schedule:

The permittee shall comply with limitations and controls specified for stormwater discharges in accordance with the following schedule:

- (a) Existing Facilities already operating but applying for permit coverage for the first time: The Stormwater Pollution Prevention Plan (SWPPP) shall be developed and implemented within 6 months of the effective date of the Certificate of Coverage (COC) and updated thereafter on an annual basis. Secondary containment, as specified in Part B-10 of this General Permit, shall be accomplished within 12 months of the effective date of the issuance of the COC.
- (b) New Facilities applying for coverage for the first time: The SWPPP shall be developed and implemented prior to the beginning of discharges from the operation of the industrial activity and be updated thereafter on an annual basis. Secondary containment, as specified in Part B-10 of this General Permit shall be accomplished prior to the beginning of discharges from the operation of the industrial activity.
- (c) Existing facilities previously permitted and applying for renewal under this General Permit: All requirements, conditions, limitations, and controls contained in this permit (except new SWPPP elements in this permit renewal) shall become effective immediately upon issuance of the COC. New elements of the SWPPP for this permit renewal shall be developed and implemented within 6 months of the effective date of this General Permit and updated thereafter on an annual basis. Secondary containment, as specified in Part B-10 of this General Permit shall be accomplished prior to the beginning of discharges from the operation of the industrial activity.

5. SPECIAL CONDITIONS WHICH WILL HAVE A SIGNIFICANT IMPACT ON THE DISCHARGE

The renewal permit adds Special Conditions in Part F that address electronic reporting requirements mandated by the federal NPDES Electronic Reporting Rule. When the agency's electronic reporting system can accept NPDES stormwater permit monitoring data, the permittee must report discharge monitoring data electronically using NC Division of Water Resources' Electronic Discharge Monitoring Report (eDMR) internet application. NC DEMLR will notify permittees when eDMR is ready to accept data.

6. BASIS FOR CONTROLS AND LIMITATIONS

Stormwater Discharges

The conditions of this general permit have been designed using best professional judgment to achieve water quality protection through compliance with the technology-based standards of the Clean Water Act (Best Available Technology [BAT] and Best Conventional Pollutant Control Technology [BCT]). Where the Director determines that a water quality violation has occurred and water quality-based controls or effluent limitations are required to protect the receiving waters, coverage under the general permit shall be terminated and an individual permit will be required. Based on a consideration of the appropriate factors for BAT and BCT requirements, and a consideration of the factors discussed in this fact sheet for controlling pollutants in stormwater discharges associated with the activities as described in Item 1 (Types of Discharge Covered), this permit retains a set of requirements for developing and implementing SWPPPs, and specific requirements for monitoring and reporting on stormwater discharges.

The permit conditions reflect the Environmental Protection Agency's (EPA) and North Carolina's pollution prevention approach to stormwater permitting. The quality of the stormwater discharge associated with an industrial activity will depend on the availability of pollutant sources. This

renewal permit still reflects the Division's position that implementation of SCMs and traditional stormwater management practices which control the source of pollutants meets the definition of BAT and BCT. The permit conditions are not numeric effluent limitations, but rather are designed to be flexible requirements for developing and implementing site specific plans to minimize and control pollutants in the stormwater discharges associated with the industrial activity.

Title 40 Code of Federal Regulations (CFR) Part 122.44(k)(2) authorizes the use of BMPs in lieu of numeric effluent limitations in NPDES permits when the agency finds numeric effluent limitations to be infeasible. The agency may also impose BMP requirements which are "reasonably necessary" to carry out the purposes of the Act under the authority of 40 CFR 122.44(k)(3). The conditions of the renewal permit are retained under the authority of both regulatory provisions. The pollution prevention requirements (BMP requirements) in this permit operate as limitations on effluent discharges that reflect the application of BAT/BCT. The basis is that the BMPs identified require the use of source control technologies which, in the context of these general permits, are the best available of the technologies economically achievable (or the equivalent BCT finding).

All facilities covered by this general permit must prepare, retain, implement, and (at a minimum of annually) update a SWPPP. The term "pollution prevention" distinguishes this source reduction approach from traditional pollution control measures that typically rely on end-of-pipe treatment to remove pollutants in the discharges. The plan requirements are based primarily on traditional stormwater management, pollution prevention and BMP concepts, providing a flexible basis for developing site-specific measures to minimize and control the amounts of pollutants that would otherwise contaminate the stormwater runoff.

The pollution prevention approach adopted in the SWPPP in this renewal permit still focuses on two major objectives: 1) to identify sources of pollution potentially affecting the quality of stormwater discharges associated with industrial activity from the facility; and 2) to describe and ensure that practices are implemented to minimize and control pollutants in stormwater discharges associated with industrial activity from the facility and to ensure compliance with the terms and conditions of the permit.

The Division believes that it is not appropriate at this time to require a single set of effluent limitations or a single design or operational standard for all facilities which discharge stormwater associated with industrial activity. This permit instead establishes a framework for the development and implementation of a site-specific SWPPP. This framework provides the necessary flexibility to address the variable risk for pollutants in stormwater discharges associated with the industrial activities that are addressed by this permit, while ensuring procedures to prevent stormwater pollution at a given facility are appropriate given the processes employed, engineering aspects, functions, costs of controls, location, and age of facility (as discussed in 40 CFR 125.3). This approach allows flexibility to establish controls which can appropriately address different sources of pollutants at different facilities.

There has been no significant change to this rationale since the previous General Permit NCG03.

Stormwater Benchmarks

The **Non-polar Oil and Grease [by EPA Method 1664 (SGT-HEM)]** benchmark of 15.0 mg/L is consistent with other States' benchmarks and/or limits for total petroleum hydrocarbons (TPH) and reflects a value normally only associated with significant oil contamination. Specifying the EPA Method 1664 with the silica gel treatment step (SGT-HEM) in the permit ensures a cost-effective way to estimate TPH (as opposed to gas chromatographic analysis).

The standard **Total Suspended Solids (TSS)** benchmark of 100 mg/L is based on the median concentration derived from the National Urban Runoff Program (NURP) study in 1983 and serves as a benchmark in most other industrial stormwater permits with TSS monitoring. The lower TSS benchmark for ORW, HQW, trout, and primary nursery area (PNA) waters of 50 mg/L reflects half that standard value and was set to flag potential problems in discharges to waters with much lower water quality standards for TSS concentrations.

The benchmarks for **Copper (Cu)**, **Lead (Pb)** and **Zinc (Zn)** are 0.010 mg/L, 0.075 mg/L, and 0.126 mg/L respectively. The benchmark for lead is equal to one half the Final Acute Value ($\frac{1}{2}$ FAV). The FAV is estimated by a statistical analysis of acute toxicity data and protects 95 percent of the species in the most sensitive genera that has been tested. A safety factor of two is applied for water quality protection purposes. The benchmarks for copper and zinc are based on EPA's NRWQC *dissolved* criteria and translated into *total* for permitting purposes (as required by federal regulations for the NPDES program). The dissolved values are converted into total recoverable with EPA's partition factor and a calculation that assumes a total suspended solids (TSS) concentration of 10 mg/L. Even though the TSS *stormwater benchmark* is typically much higher, 10 mg/L assumes a "best case" stormwater discharge with low solids, resulting in a conservative benchmark value for the total recoverable metal.

The **pH benchmark** of 6-9 Standard Units (SU) is based on water quality standards.

7. REQUESTED VARIANCES OR ALTERNATIVES TO REQUIRED STANDARDS

There are no requested variances or alternatives to required standards. Facilities requesting variances to required standards will not be covered under this General Permit but will instead be required to seek coverage under an individual permit.

8. THE ADMINISTRATIVE RECORD

The administrative record, including application, draft permits, fact sheet, public notice, comments received, and additional information is available by writing to:

Stormwater Program
Division of Energy, Mineral, and Land Resources (DEMLR)
1612 Mail Service Center
Raleigh, North Carolina 27699-1612

Due to the COVID-19 pandemic, visitors are not currently allowed at DEMLR offices. However, electronic copies of the documents listed above are available on our Laserfiche online repository, or by emailing alaina.morman@ncdenr.gov.

9. STATE CONTACT

Additional information about the renewal permit may be obtained between the hours of 8:00 AM and 5:00 PM Monday through Friday by contacting **Alaina Morman** at alaina.morman@ncdenr.gov.

10. SCHEDULE OF PERMIT ISSUANCE

Draft Permit Public Notice – Statewide Notice to publish: May 17, 2021
Draft available on-line: May 17, 2021
Comment Period Ends: June 16, 2021

Permit Scheduled to Issue – No later than: July 1, 2021
Effective: July 1, 2021

11. PROCEDURE FOR THE FORMULATION OF FINAL DETERMINATIONS

a. Comment Period

The Division of Energy, Mineral, and Land Resources proposes to issue an NPDES General Permit for the above described stormwater discharges. These determinations are open to comment from the public.

Interested persons are invited to submit written comments on the renewal permit or on the Division of Energy, Mineral, and Land Resources' proposed determinations to the following address:

Stormwater Program
Division of Energy, Mineral, and Land Resources
Attn: Alaina Morman
1612 Mail Service Center
Raleigh, North Carolina 27699-1612
OR: alaina.morman@ncdenr.gov

All comments received within thirty (30) days following the date of public notice are considered in the formulation of final determinations.

b. Public Meeting

The Director of the Division of Energy, Mineral, and Land Resources may hold a public meeting if there is a significant degree of public interest in a proposed permit or group of permits. Public notice of such a meeting will be circulated in newspapers and on the Division's website.

c. Appeal Hearing

An applicant whose permit is denied, or is granted subject to conditions he deems unacceptable, shall have the right to a hearing before the Commission upon making written demand to the Office of Administrative Hearing (OAH) within 30 days following issuance or denial of the permit.

d. Issuance of a Permit When no Hearing is Held

If no public meeting or appeal hearing is held, after review of the comments received, and if the Division of Energy, Mineral, and Land Resources determinations are substantially unchanged, the permit will be issued and become effective on the first day of the month following the issuance date. This will be the final action of the Division of Energy, Mineral, and Land Resources.

If a public meeting or appeal hearing is not held, but there have been substantial changes, public notice of the Division of Energy, Mineral, and Land Resources revised determinations will be made. Following a 30-day comment period, the permit will be issued and will become effective on the first day of the month following the issuance date. This will be the final action of the

Division of Energy, Mineral, and Land Resources unless a public meeting or appeal hearing is granted.